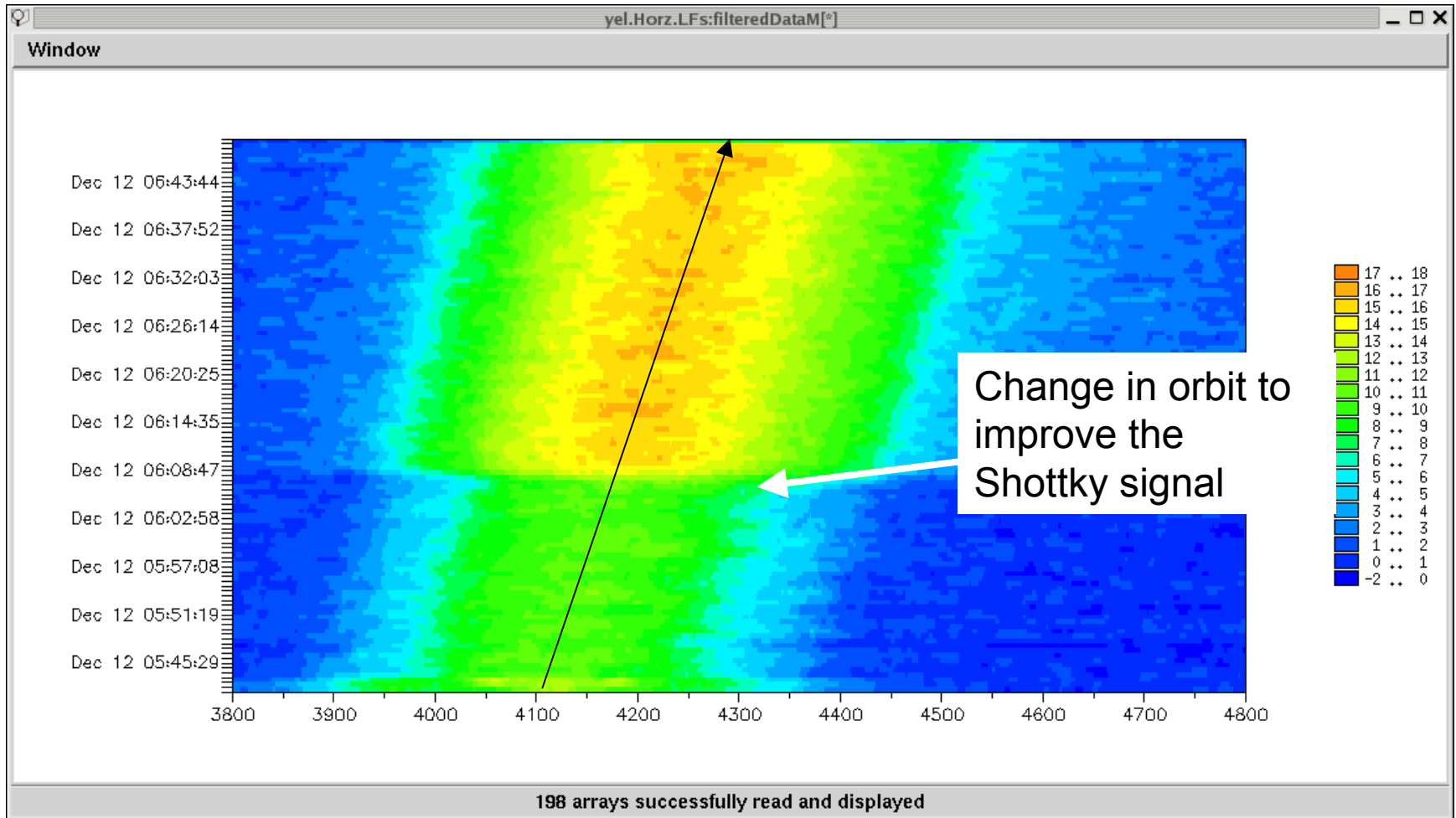


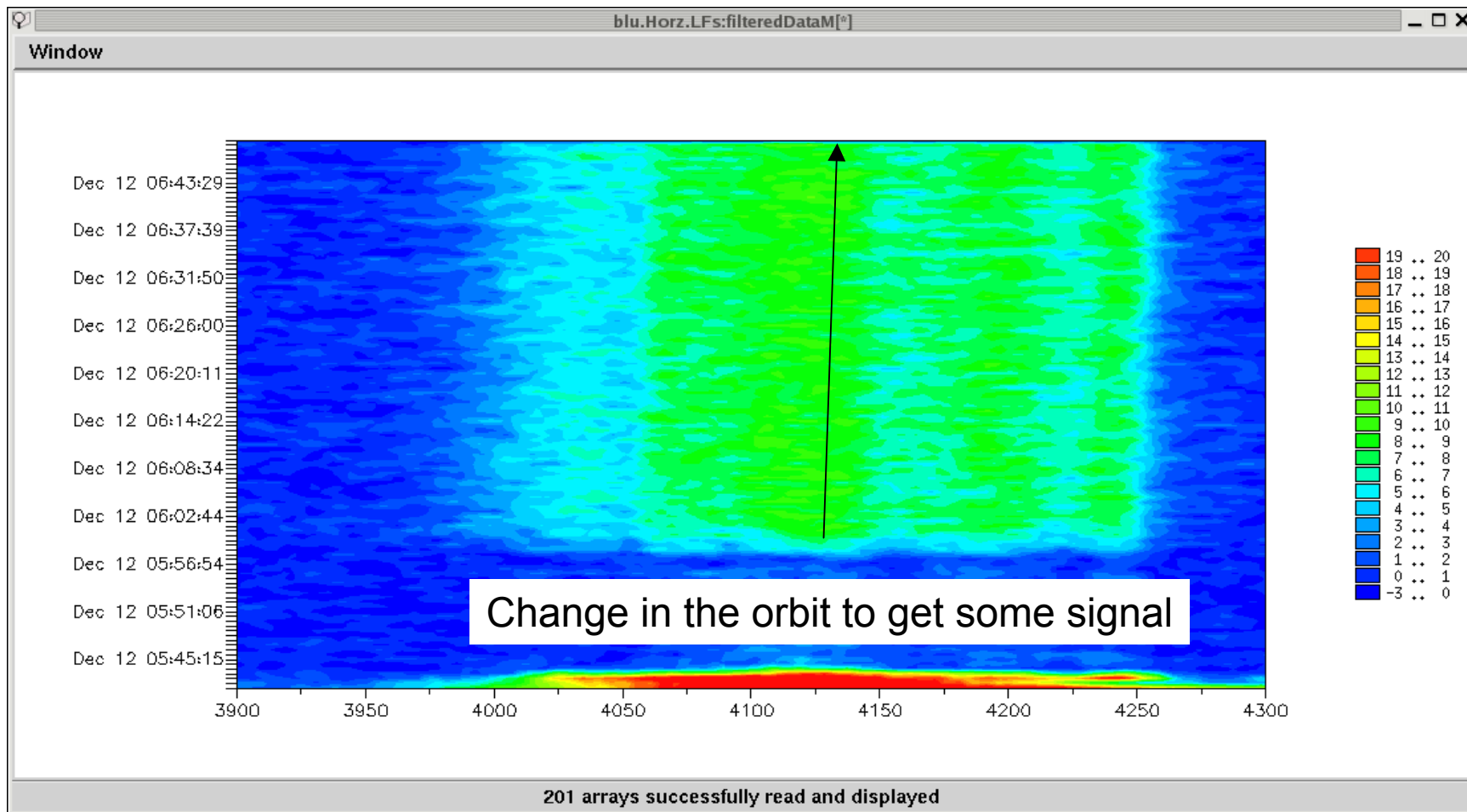
Energy Loss Experiment APEX

N. P. Abreu, W. Fischer,
K. Brown, M. Blaskiewicz, J.
Buttler, and H. Burkhardt (CERN)

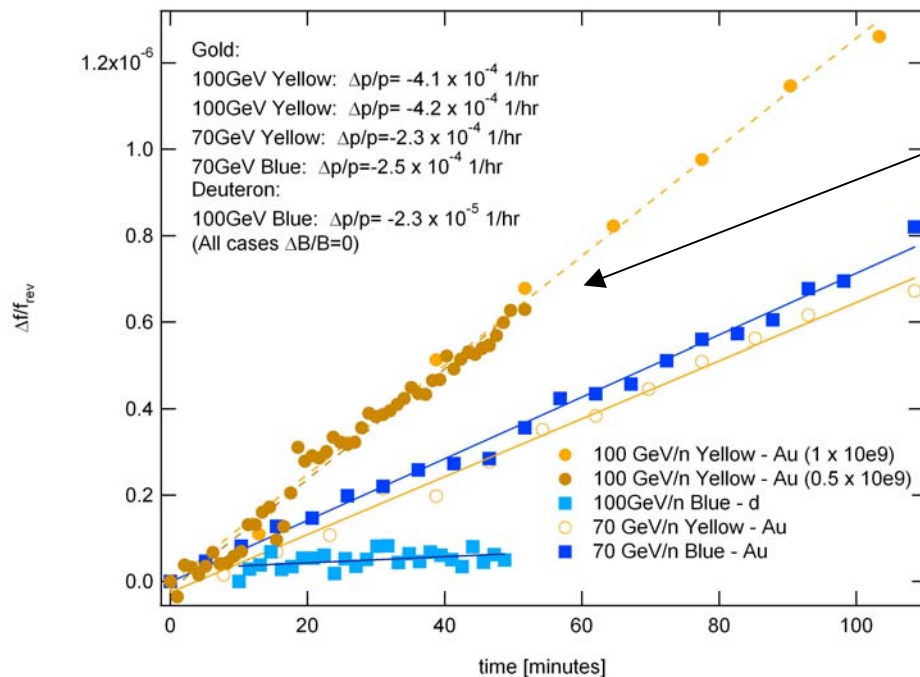
Yellow



Blue



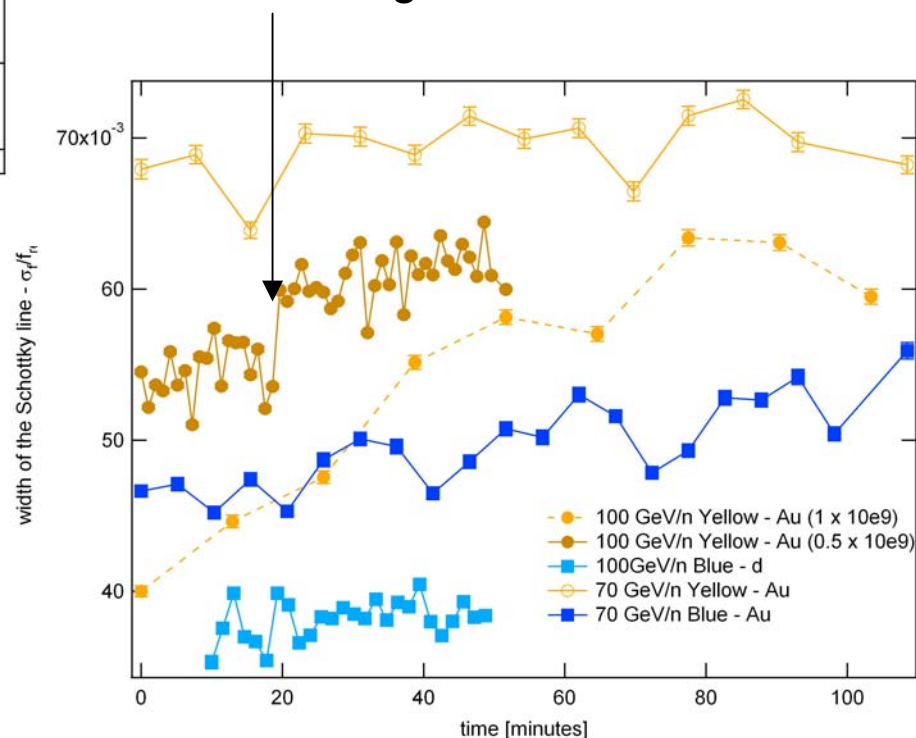
Results



The Yellow measurement is on top of the first one!!!

This time we could not observe any increase in the energy spread. In the previous measurement this could be caused by crosstalk between Yellow and Blue (?)

Orbit Change



Summary

| Parameters | particle | | Au79+ | | | d |
|------------------|------------------------------------|-------------|-------------|-------------|-------------|-------------|
| | Energy | GeV/nucleon | 100 | 100 | 70 | 70 |
| | γ | | 107.4 | 107.4 | 75.2 | 108.7 |
| | η | | 0.0018 | 0.0018 | 0.0017 | 0.0018 |
| Impedance | σ | mm | 0.538 | 0.538 | 0.79 | 0.79 |
| | k_{loss} - Diffraction | V/pC | 4776 | 4776 | 4744 | 4776 |
| | k_{loss} - Resistive Wall | V/pC | 394 | 394 | 230 | 394 |
| | U_{ipm} | eV/turn | 5.17 | 5.17 | 4.97 | 0.00 |
| Ionization | P | nTorr | 1 | 1 | 1 | 1 |
| | U_i | meV/turn | 9.7 | 9.7 | 9.3 | 9.3 |
| Imp+Ion | $U_i + U_{\text{ipm}}$ | eV/turn | 5.18 | 5.18 | 4.98 | 0.01 |
| | $\Delta p/p \times 10^{-4}$ | 1/hour | 1.85 | 1.85 | 1.78 | 0.00 |
| Synchrotron | U_s | eV/turn | 20.6 | 20.6 | 4.95 | 0.27 |
| | $\Delta p/p \times 10^{-4}$ | 1/hour | 7.4 | 7.4 | 2.5 | 7.6 |
| | supression | % | 56 | 56 | 94 | 100 |
| | with suppression | 1/hour | 3.26 | 3.26 | 0.15 | 0.00 |
| Total - Calc. | $\Delta p/p \times 10^{-4}$ | 1/hour | 5.10 | 5.10 | 1.93 | 0.23 |
| Exp. error | $\Delta p/p \times 10^{-4}$ | 1/hour | 0.5 | 0.5 | 0.2 | 0.01 |
| Total - Measured | $\Delta p/p \times 10^{-4}$ | 1/hour | 4.1 | 4.2 | 2.4 | 0.25 |